

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A printed circuit board comprising:

a printed wiring board;

a ~~plurality of components~~ component mounted on said printed wiring board, wherein the printed circuit board has a cavity with one or more openings to the surface of the printed circuit board; and

an electrically non-conductive filler material disposed in the cavity and on the surface of the printed circuit board immediately surrounding the cavity so as to bridge across the one or more openings of the cavity and at least partially infill the ~~one or more openings of the~~ cavity, wherein the filler material renders the cavity substantially inaccessible to subsequently-applied coatings.

2. (Canceled)

3. (Currently Amended) The printed circuit board of claim 1, wherein the cavity comprises:

a volume of space defined by leads of a said component, ~~the~~ said component body and said printed wiring board, wherein the volume of space has a plurality of openings to the surface of the printed circuit board between neighboring component leads.

4. (Previously Presented) The printed circuit board of claim 1, wherein the cavity comprises:

a volume of space between neighboring components mounted on the printed wiring board.

5. (Previously Presented) The printed circuit board of claim 1, wherein the cavity comprises:

a volume of space between a component mounted on the printed wiring board and the printed wiring board.

6. (Original) The printed circuit board of claim 1, wherein said filler material is thixotropic.

7. (Original) The printed circuit board of claim 1, wherein said filler material is an epoxy.

8. (Previously Presented) The printed circuit board of claim 7, wherein said epoxy is one of the family of Bisphenol-A epoxies mixed with an amine hardner.

9. (Original) The printed circuit board of claim 7, wherein said epoxy is a thermally cured epoxy.

10. (Original) The printed circuit board of claim 7, wherein said epoxy is a latex based non-electrically conductive epoxy.

11. (Currently Amended) The printed circuit board of claim 1, wherein the subsequently-applied coating comprises:

a layer of dielectric coating that conformingly coats exposed surfaces of the printed wiring circuit board, the component, and including the filler material, ~~the dielectric coating formed of a low viscosity material that facilitates accurate application of the dielectric coating using a spray atomized technique,~~ wherein the at least one of the openings of the cavity are openings is sufficiently large to prevent the dielectric coating from bridging across the one or more openings of the cavity opening without the presence of the filler material.

12. (Currently Amended) A printed circuit board comprising:

a printed wiring board;

a plurality of components each having a device body mounted on said printed wiring board to form one or more ~~regions of the printed circuit board~~ regions having a highly variable and cavitations surface including at least one cavity ~~a plurality of cavities~~ defined by component leads, the component body adjacent the component ~~series of~~ leads, and a portion of the printed wiring board below the component ~~series of~~ leads, wherein each such cavity includes at least one opening ~~a plurality of openings~~ to the surface of the printed circuit board; and

a layer of non-electrically-conductive filler material ~~conformingly~~ adhered to printed circuit board surfaces in at least one of the one or more regions to provide a contoured, contiguous filler material surface having gradual transitions, wherein the filler material at least partially infills the at least one cavity and bridges across the at least one cavity opening so as to encapsulate and seal the cavity. ~~openings and at least partially infills the cavities.~~

13. (Original) The printed circuit board of claim 12, wherein said filler material is thixotropic.

14. (Previously Presented) The printed circuit board of claim 12, wherein said filler material is an epoxy.

15. (Currently Amended) The printed circuit board of claim 14, further comprising:

a low viscosity, high adherence dielectric coating that, when applied and cured, covers predetermined portions of said printed circuit board including at least a portion of the one or more regions coated with said filler material, wherein the filler material prevents the dielectric coating from entering the at least one cavity. ~~plurality of cavities.~~

16. (Currently Amended) The printed circuit board of claim 15, further comprising:

a conductive coating covering said dielectric coating and portions of the printed circuit board not covered by the dielectric coating, wherein the dielectric coating and the conductive coating form a conformal EMI shield that adheres to and conforms with the printed circuit ~~wiring~~ board surfaces.

17. (Original) The printed circuit board of claim 14, wherein said filler material is thixotropic.

18-21 (Canceled)